**Algebra II Final Review 2014-2015** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Simplify: 

2. Evaluate to the nearest hundredth: 

3. Simplify: 

4. A bag contains 3 red, 6 green, and 7 blue marbles. A marble is picked at random and is replaced. A second marble is picked at random. What is the probability the first marble is blue and the second marble is green?

5. Write as a single logarithm: 

6. Use the Zero-Product Property to find the zeros of the function: 

7. Solve and round your answer to the nearest hundredth: 

8. Solve the equation: 

9. Find the number of ways to choose a committee of 4 from a group of 10.

10. Simplify: 

11. Describe the end behavior: 

12. Write in standard form.

13. Evaluate and round to the nearest hundredth: 

14. Find the number of permutations of the letters in the word mathematics.

15. Find the minimum value: 

16. Use the Quadratic Formula to solve: 

17. Write in standard form.

18. Simplify: 

19. In a track meet, 13 runners compete for first, second, third, and fourth place. How many different ways can the runners place if there are no ties?

20. Find all the zeros of 

21. Divide: 

22. Solve for x: 

23. Solve using the Quadratic Formula: 

24. If a card is drawn at random, what is the probability that card will be a club or a face card?

25. Identify the vertex: 

26. Evaluate and round to the nearest hundredth: 

27. Solve: 

28. Express as a single logarithm: 

29. If you are choosing two marbles from a bag of 4 red marble, 8 green marble, and 2 blue marbles. What is the probability you will choose two green marbles. The first marble is replaced.

30. Solve for x: 

31. Write as a sum or difference of logarithms: 

32. Solve: 7!

33. A lunch menu consists of 5 different kinds of sandwiches, 2 different kinds of soup, and 8 different drinks. How many choices are there for ordering a sandwich, a bowl of soup, and a drink?

34. Find all the zeros of 

35. Divide: 

36. Simplify: 

37. Solve and round to the nearest hundredth: 

38. Solve: 

39. Classify by numbers of terms and degree: 

40. Solve: 